DAILY AIR MONITORING AND SITE ACTIVITIES
FIELD SUMMARY REPORT FOR DECEMBER 19, 2013

1.0 Introduction

The Barth Smelting Corp. Site (the Site) includes the historic footprint of the former Barth Smelting Corporation (located at 99 Chapel Street) and the extent of contamination adjacent to the former facility, including a playground and grassy area adjacent to the Community Building on the Newark Housing Authority (NHA) Terrell Homes property (located at 59-97 Chapel Street). The Site is located in a mixed residential/industrial neighborhood within the Ironbound Section of Newark, New Jersey, adjacent to the Passaic River. The Ironbound Section of Newark is historically an industrialized neighborhood. Previous assessments conducted in March, April and May of 2013, by the U.S. Environmental Protection Agency (EPA) investigated surface and subsurface soil throughout both properties. Each investigation indicated the presence of lead that exceeds the New Jersey Department of Environmental Protection's (NJDEP) Residential Direct Contact Soil Cleanup Criteria (RDCSCC) of 400 milligrams per kilogram (mg/kg).

EPA, with support from their contractors, Emergency and Rapid Responses Services (ERRS) and the Removal Support Team 2 (RST 2), initiated a Removal Action at the Site on December 3, 2013. The Removal Action consists of the removal and disposal of contaminated soils, air monitoring during intrusive activities, and placing a clean soil cap over the excavated area.

The following daily air monitoring summary report summarizes air monitoring for particulates and air sampling for lead during the Removal Action activities conducted on **Thursday, December 19, 2013.**

2.0 Daily Site Information

2.1 Summary of On-Site Activities:

RST 2 set up air monitoring stations to monitor particulate concentrations onsite during intrusive removal action activities. ERRS continued excavating contaminated soil, loading out stockpiled material and backfilling with cleanfill.

2.2 Air Sampling/Monitoring Methodology:

In order to assess for potential migration of lead particulates from the Site, RST 2 established four air stations located near occupied residences adjacent to the work area. Each of the established air stations were equipped with a DustTrak™ 8530 particulate monitor and an air sampling unit. Air samples were collected for total lead analysis using a 37 millimeter (mm), 0.8 micrometer (µm) MCEF cassette attached to a Gilian Gilair sampling pump. A minimum flow rate of approximately 2 liters per minute (L/min) was used for each sample collected for total lead analysis. All air monitoring and sampling activities were conducted in accordance with the Site-Specific Community Air Monitoring Plan (CAMP). Sample management was performed using EPA's SCRIBE software. Air monitoring results will be compared to the Site-Specific Action Level for particulates of 0.15 milligrams per cubic meter (mg/m^3). Air sampling results will be compared to the site-specific action level for lead in dust of 0.15 micrograms per cubic meter ($\mu g/m^3$) to determine if lead is present in any fugitive dust generated as a result of site operations.

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Table 1: Weather Conditions

Time	Temp (F)	Dew Point (F)	Humidity (%)	Wind Speed (mph)	Direction	Precipitation Events
8:00	42	28.9	60	7	SW	Mostly Cloudy
14:00	42	25	51	10	SW	Mostly Cloudy

3.0 Air Monitoring Summary

Figure 1: Air Stations Map

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Table 2: Air Station Information Table

Station No.	Upwind/ Downwind	Date	Start Time	Stop Time	Monitoring Equipment
01	Downwind	12/19/13	8:50	15:52	DustTrak 8530
02	Upwind	12/19/13	8:50	15:52	DustTrak 8530
03	Downwind	12/19/13	8:55	15:53	DustTrak 8530
04	Downwind	12/19/13	9:00	15:57	DustTrak 8530

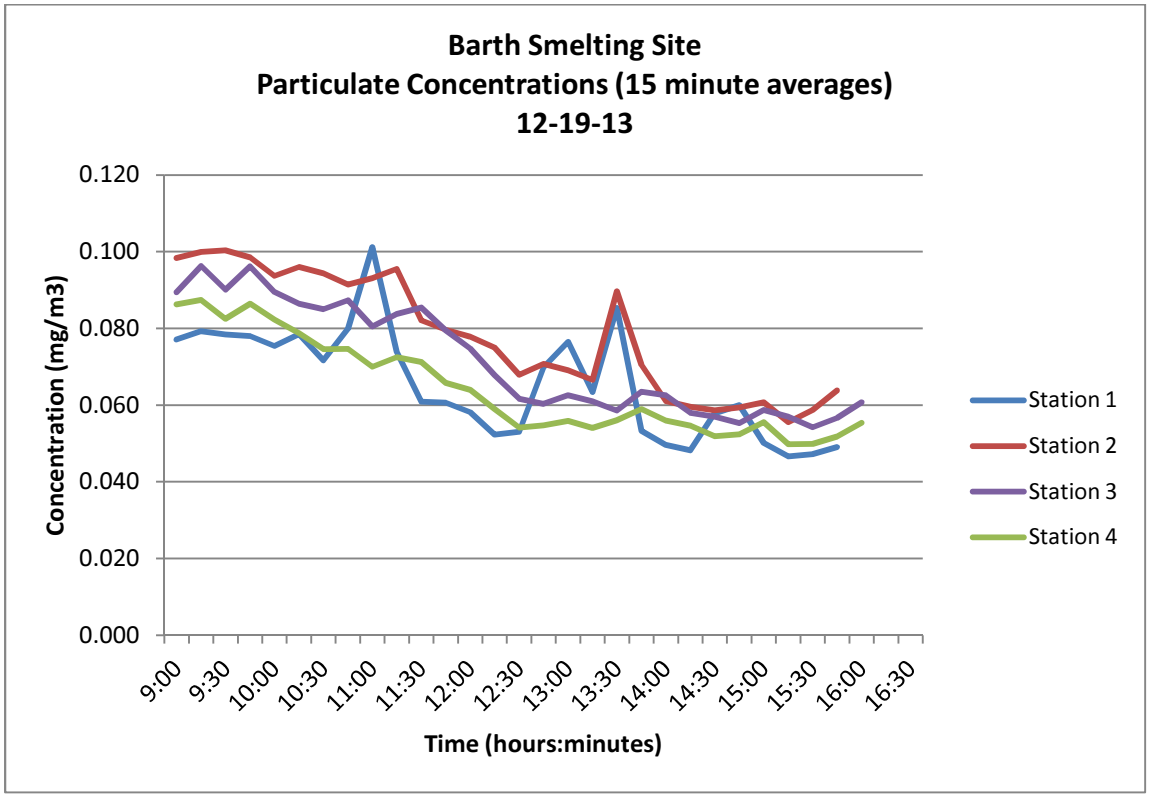
3.1 Particulate Monitoring Results

Particulate monitoring was conducted on Thursday, December 19, 2013 for approximately 7 hours at four air stations. According NJDEP's airnow.gov website, moderate conditions were reported at a peak of $PM_{2.5}$ 79. Moderate air quality, numerically (51 – 100), is cite as" acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people who are unusually sensitive to air pollution". No significant particulate concentrations were detected. Refer to Table 3 below for the daily average, maximum, and 8 hour time weighted average (TWA) concentrations and Figure 2 for 15-minute average concentration levels.

Table 3: DustTrak Particulate Summary Table

Station No.	Monitoring Time	Daily Average mg/m^3	TWA mg/m^3	15 minute maximum	
				mg/m^3	Time
01	09:00 – 16:00	0.064	0.057	0.101	10:45 – 11:00
02	09:00 – 16:00	0.076	0.067	0.100	9:15 – 9:30
03	09:00 – 16:00	0.07	0.061	0.096	9:45 – 10:00
04	09:00 – 16:00	0.063	0.055	0.087	9:00 – 9:15

Figure 2: Particulate Concentration Graph



4.0 Air Sampling Summary

Table 4: Air Sample Collection Table

Station No.	RST 2 Sample ID	CLP No.	Container	Analysis	Sample Volume (Liters)	Sample Duration Time	
						Start	Stop
01	AA001-121913-001	MBB451	MCE Cassette	Total Lead, ISMO1.3	840	8:50	13:50
02	AA002-121913-001	MBB452			852.6	8:52	13:52
03	AA003-121913-001	MBB453			850	8:56	16:01
04	AA004-121913-001	MBB454			852.24	9:00	16:04
Field Blank	FB-121913	MBB455			NA	NA	NA

Notes: NA = not applicable

4.1 Dispatch Data

On December 19, 2013, RST 2 shipped five air samples including one field blank and additional air cartridges for laboratory quality control, via FedEx priority overnight under Airbill No. 803796625577 to Contract Laboratory Program (CLP) Chemtech Consulting Group laboratory located in Mountainside, New Jersey, in a cooler on ice under Chain of Custody No. 2-121913-140330-0020.

Table 5: Air Sampling Analytical Results

Station	RST 2 Sample ID	Result (ug)	Qualifier
01	AA001-121913-001	0.10	U
02	AA002-121913-001	0.10	U
03	AA003-121913-001	0.31	-
04	AA004-121913-001	0.10	U
Field Blank	FB-121913	0.10	U

Notes: ug = micrograms; U = non-detect